

IN THE CLAIMS

Please cancel claims 1 - 17 and 32 - 51.

Add the following claims: --

1 E3

2 52. An isolated pyruvate carboxylase gene coding for the
3 amino acid sequence given under SEQ ID NO:2 or coding for an amino
4 acid sequence expressed by an allele variation of the pyruvate
5 carboxylase gene coding for the amino acid sequence given under SEQ
6 ID NO:2 wherein the allele variation is a deletion, insertion, or
7 substitution of a nucleotide in said isolated pyruvate carboxylase
8 gene, said pyruvate carboxylase gene with the allele variation
9 capable of expressing an amino acid sequence having a substantially
10 identical or increased enzymatic activity as the enzymatic activity
of the amino acid sequence of SEQ ID NO:2.

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2 53. An isolated pyruvate carboxylase gene with the
3 nucleotide sequence of nucleotides 165 to 3587 according to SEQ ID
4 NO:1 or with a corresponding nucleotide sequence formed by a
5 deletion, insertion, or substitution of a nucleotide from the
nucleotide sequence of SEQ ID NO:1.

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2 54. The isolated pyruvate carboxylase gene defined in
3 claim 53 with a preceding promoter of the nucleotide sequence from
nucleotide 20 to 109 according to SEQ ID NO:1.

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2 55. The isolated pyruvate carboxylase gene according to
claim 54 with a preceding tac promoter.

1 56. The isolated pyruvate carboxylase gene according to
2 claim 55 with a regulatory gene sequence associated with the tac
3 promoter.

1 57. The isolated pyruvate carboxylase gene according to
2 claim 53 associated with a regulatory gene sequence.

1 58. A nucleic acid comprising an isolated pyruvate
2 carboxylase gene according to claim 53, preceded by a promoter and
3 associated with a regulatory gene sequence.

1 59. A vector containing an isolated pyruvate carboxylase
2 gene according to claim 53.

1 60. A transformed cell containing in replicatable form
2 an isolated pyruvate carboxylase gene according to claim 53.

1 61. A transformed cell containing a vector according to
2 claim 59.

1 62. A transformed cell according to claim 60 belonging
2 to the genus *Corynebacterium*.

1 63. A transformed cell according to claim 60, in which
2 an enzyme which participates in synthesis of a corresponding amino

3 acid or an enzyme which participates in export of a corresponding
4 amino acid is deregulated.

1 64. An isolated pyruvate carboxylase gene coding for the
2 amino acid sequence given under SEQ ID NO:2.

1 65. An isolated pyruvate carboxylase gene with the
2 nucleotide sequence of nucleotides 165 to 3587 according to SEQ ID
3 NO:1.

1 66. A method of microbially producing an amino acid of
2 the aspartate or glutamate family which comprises the steps of:
3 (a) genetically modifying an isolated pyruvate carboxyl-
4 ase gene coding for the amino acid sequence given under SEQ ID NO:2
5 or coding for an amino acid sequence expressed by an allele varia-
6 tion of the pyruvate carboxylase gene coding for the amino acid
7 sequence given under SEQ ID NO:2 wherein the allele variation is a
8 deletion, insertion, or substitution of a nucleotide in said
9 isolated pyruvate carboxylase gene, said pyruvate carboxylase gene
10 with the allele variation capable of expressing an amino acid
11 sequence having a substantially identical or increased enzymatic
12 activity as the enzymatic activity of the amino acid sequence of
13 SEQ ID NO:2 to obtain a modified pyruvate carboxylase gene with
14 increased pyruvate carboxylase activity over the starting pyruvate
15 carboxylase gene; and

16 (b) producing the amino acid of the aspartate or gluta-
17 mate family by expressing the modified pyruvate carboxylase gene in
18 an amino acid-producing microorganism.

1 67. The method of producing an amino acid of the aspar-
2 tate or glutamate family defined in claim 66 wherein the isolated
3 pyruvate carboxylase gene codes for the amino acid sequence given
4 under SEQ ID NO:2.

1 68. A method of microbially producing an amino acid of
2 the aspartate or glutamate family which comprises the steps of:
3 (a) genetically modifying an isolated pyruvate carboxyl-
4 ase gene with the nucleotide sequence of nucleotides 165 to 3587
5 according to SEQ ID NO:1 or with a corresponding nucleotide se-
6 quence formed by a deletion, insertion, or substitution of a
7 nucleotide from the nucleotide sequence of SEQ ID NO:1 to obtain a
8 modified pyruvate carboxylase gene with increased pyruvate carbox-
9 ylase activity over the starting pyruvate carboxylase gene; and

10 (b) producing the amino acid of the aspartate or gluta-
11 mate family by expressing the modified pyruvate carboxylase gene in
12 an amino acid-producing microorganism.

1 69. The method of producing an amino acid of the aspar-
2 tate or glutamate family defined in claim 68 wherein the isolated
3 pyruvate carboxylase gene has the nucleotide sequence of
4 nucleotides 165 to 3587 according to SEQ ID NO:1.--